### METHODOLOGY SHEET FOR GLOBAL PARTNERSHIP FOR EDUCATION (GPE) INDICATORS

<table>
<thead>
<tr>
<th>Indicator title</th>
<th>Indicator (8) Gender parity index of out-of-school rate for: (a) primary education; (b) lower secondary education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result measured (from GPE Results Framework):</td>
<td>Strategic Goal (2) Increased equity, gender equality, and inclusion for all in a full cycle of quality education, targeting the poorest and most marginalized, including by gender, disability, ethnicity, and conflict or fragility</td>
</tr>
</tbody>
</table>

### JUSTIFICATION FOR INDICATOR

The fifth target of Sustainable Development Goal 4 is: “By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations.” The global movement to achieve gender parity in education is at least in part based on the recognition that there are vast positive effects for individuals and societies as a whole that derive from reducing disparities. At the individual level, benefits include improved overall family and children health, improved child survival, decreased prevalence of HIV/AIDS and increased individual earnings, to name a few. Also, reducing disparities is a critical lever to reaching other development objectives at the macro level and to break the cycle of poverty. For example, there is substantive evidence suggesting that countries that reduce gender disparity in primary and secondary education are more likely to have higher economic growth with evidence showing that some countries lose more than $1 billion a year by failing to educate girls to the same level as boys.

As summarized in a joint UNICEF/UNESCO report (2015), “the hardest to reach children are still out of school. They are poor, rural and often girls. But the situation is different in every country” (page 15). At the global level, approximately 58 million children of primary school age were out of school in 2012, with the highest concentrations in West and Central Africa. Among children of primary school age, 1 out of 10 girls and 1 out of 12 boys were out of school in 2013—and in 2012, more than half of primary school-age children out of school were girls (31 out of 58 million). With regards to adolescents of lower secondary age (typically between 12 and 15 years), about 63 million were neither in primary or secondary school in 2012. The out-of-school rate in this age group was 17% overall—17% for girls and 16% for boys.

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Overall, there has been significant progress in reducing the gender gap of out-of-school rates (OOSRs) since the early 2000s. However, that trend has weakened recently despite many existing initiatives. Clear differences also appear at regional and country levels. Overall, the OOSRs and gender gap in OOSRs for children of lower secondary school age have decreased, especially due to the very positive results registered in the East Asia, South Asia and Pacific regions. While gender disparities tended to be greater in regions with higher OOSRs in 2012 (caveat: this was not the case in South Asia), inter-country differences were pronounced, hinting to the need for “more fine-grained, sub-national information” to “develop in-depth profiles of these children for targeted policies”.

For the Global Partnership for Education (GPE) developing country partners (DCPs) specifically, the number of children of primary school age who were out of school decreased slightly more among girls than boys between 2000 and 2011, with an average decrease of 3% and 2.7% per year for girls and boys, respectively. The share of out-of-school boys fell from 1 in 3 in 2000 to 1 in 5 in 2011. On the other hand, 1 in 2 girls of primary-school age was not in school in 2000, versus 1 in 4 in 2011. Despite the recent improvements shown in DCPs in closing the gender gap, girls still represented the majority of the OOS population in DCPs in 2011, at 55%.

**Rationale for indicator selection:**

This indicator is included to reflect the extent to which gender inequities persist in terms of enrolment – of which the OOS-rate is the mirror image – and, therefore, of the extent to which the result of: “Increased equity, gender equality, and inclusion for all in a full cycle of quality education, targeting the poorest and most marginalized, including by gender …” is not achieved. It will reflect, overall, the extent to which the out-of-school problem is a gender-related problem (but see qualifications in the data limitations section, below). This question is particularly important to GPE as the principles and values as expressed in the GPE Charter and in GPE 2020 underscore the importance of gender equity in education – and beyond - for the Partnership.

This indicator specifically measures gender parity in out-of-school-rates for children of primary and lower secondary school age, as this is the indicator that best describes the ratio of the respective populations that are not enrolled in primary or lower secondary education. It provides crucial information to identify the target population for policies and interventions aimed at achieving universal primary and lower secondary education.

**DEFINITION**

**Gender parity index (GPI) of out-of-school rate for: (a) primary education; (b) lower secondary education**

This indicator combines two basic concepts: that of a gender parity index, i.e. a ratio where 1 denotes perfect parity, on the one hand, and that of out-of-school rates, on the other. This combination leads to the requirement of a non-traditional reading of this indicator. That is to say, while, traditionally, a value below 1 indicates female disadvantage and one above 1, male disadvantage, as the index refers to out-of-school rate rather than enrolment or completion rate, the opposite is the case.

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Out-of-school rates are defined as:

(a) **The rate of out-of-school children of primary school age is defined as:**

Number of children of official primary school age who are not enrolled in primary or secondary school, expressed as a percentage of the population of official primary school age.

(b) **The rate of out-of-school children of lower secondary school age is defined as:**

Number of children of official lower secondary school age who are not enrolled in primary or secondary school, expressed as a percentage of the population of official lower secondary school age. Note: The age ranges associated with the education levels are based on the International Standard Classification of Education (ISCED). The education levels and grades used in the calculation of education indicators are consistent with each country’s ISCED mapping.

<table>
<thead>
<tr>
<th>Unit of measurement:</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaggregation:</td>
<td>A GPI equal to 1 indicates a parity between females and males.</td>
</tr>
<tr>
<td>Year for data reported (select only one and mark an “X”):</td>
<td><em>X</em> fiscal year</td>
</tr>
<tr>
<td>Frequency of data collection:</td>
<td>Official request to UIS submitted twice a year (beginning and mid-calendar year), following UIS releases of education data.</td>
</tr>
</tbody>
</table>

### DATA TREATMENT

<table>
<thead>
<tr>
<th>Source of information for collecting data:</th>
<th>Source document, template, etc.: UIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source agency:</td>
<td>UIS</td>
</tr>
</tbody>
</table>

Country-level figures for out of school rates for children of primary and lower secondary school age are provided directly by UIS to the GPE Secretariat. While GPE does not perform the calculation, details are provided below for the purpose of clarity.

At the country level, out-of-school rates for males and females of primary and lower secondary school age are computed as follows:

1. **For children of primary school age, for females and males separately:**

   1) Subtract the number of primary school-age pupils enrolled in either primary or secondary school from the total population of official primary school age.

   2) Divide the difference obtained in Step (1) by the population of primary school age.

   3) Multiply that quotient by 100.

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Rate of out-of-school children of primary school age \(OOS_{pri,j,t}\) for a given year, in country \(j\):

1.1. For females
\[
OOS_{pri,f,j,t} = \frac{P_{pri,f,j,t} - E_{pri,f,j,t}}{P_{pri,f,j,t}} \times 100
\]

1.2. For males
\[
OOS_{pri,m,j,t} = \frac{P_{pri,m,j,t} - E_{pri,m,j,t}}{P_{pri,m,j,t}} \times 100
\]

Where:
- \(P_{pri,f,j,t}\) = Female population of official primary school age in country \(j\) in year \(t\)
- \(E_{pri,f,j,t}\) = Total enrolment (number of enrolled children) of females of official primary school age, in primary and secondary education, in country \(j\) in year \(t\)
- \(P_{pri,m,j,t}\) = Male population of official primary school age in country \(j\) in year \(t\)
- \(E_{pri,m,j,t}\) = Total enrolment (number of enrolled children) of males of official primary school age, in primary and secondary education, in country \(j\) in year \(t\)

2. For children of lower secondary school age, for females and males separately:

1) Subtract the number of lower secondary school-age pupils enrolled in primary or secondary school from the total population of official lower secondary school age.
2) Divide the difference obtained in Step (1) by the population of lower secondary school age.
3) Multiply that quotient by 100.

Rate of out-of-school children of lower secondary school age \(OOS_{ls,j,t}\) for a given year, in country \(j\):

2.1 For females
\[
OOS_{ls,f,j,t} = \frac{P_{ls,f,j,t} - E_{ls,f,j,t}}{P_{ls,f,j,t}} \times 100
\]

2.2 For males
\[
OOS_{ls,m,j,t} = \frac{P_{ls,m,j,t} - E_{ls,m,j,t}}{P_{ls,m,j,t}} \times 100
\]

Where:
- \(P_{ls,f,j,t}\) = Female population of official lower secondary school age in country \(j\) in year \(t\)
- \(E_{ls,f,j,t}\) = Total enrolment (number of enrolled children) of females’ official lower secondary school age, in primary and secondary education in country \(j\) in year \(t\)
- \(P_{ls,m,j,t}\) = Male population of official lower secondary school age in country \(j\) in year \(t\)
Total enrolment (number of enrolled children) of males of official lower secondary school age, in primary and secondary education in country $j$ in year $t$

Notes:

1. An alternative calculation method: subtracting the adjusted net enrolment rate in primary or lower secondary education from 100.
2. Population data: Every two years, the United Nations Population Division releases new population projections and revised estimates for previous years. The UIS systematically revises its data according to the new estimates in order to provide the most accurate information possible and allow comparison of trends over time. These updates may result in revisions in the indicators’ values.

The aggregate values for the group of all GPE countries (and the relevant sub-groupings – i.e. disaggregated by FCAC and gender) of primary and lower secondary out-of-school rates are provided directly by UIS to the GPE Secretariat.

While GPE does not perform these calculations, details are provided below for the purpose of clarity.

These aggregate values are computed using both country-level publishable data and imputed estimates for countries with missing data (N.B.: these country-level estimates are not provided to GPE). Aggregate figures are calculated as the weighted average using the population of the official school age of primary and lower secondary, respectively, as weights (for females and males separately):

(a) Population weighted average of OOSR for children of primary school age ($PW\ OOS_{pri,t}$) for a given year:

1.1. For females

$$PW_{OOS_{pri,f,t}} = \frac{\sum_{j=1}^{n}(OOS_{pri,f,j,t} \times Pa_{pri,f,j,t})}{\sum_{j=1}^{n}Pa_{pri,f,j,t}}$$

1.2. For males

$$PW_{OOS_{pri,m,t}} = \frac{\sum_{j=1}^{n}(OOS_{pri,m,j,t} \times Pa_{pri,m,j,t})}{\sum_{j=1}^{n}Pa_{pri,m,j,t}}$$

Where:

$OOS_{pri,f,j,t} = OOSR$ for female children of primary school age, in country $j$ in year $t$

$Pa_{pri,f,j,t} = Female$ population of official primary school age in country $j$ in year $t$

$OOS_{pri,m,j,t} = OOSR$ for male children of primary school age, in country $j$ in year $t$

$Pa_{pri,m,j,t} = Male$ population of official primary school age in country $j$ in year $t$

(b) Population weighted average of OOSR for children of lower school age
secondary school age (\( PWOOS_{ls,t} \)) for a given year:

1.3. For females
\[
PWOOS_{ls,f,t} = \frac{\sum_{j=1}^{n_j}(OOS_{ls,f,j,t} \times P_{a ls,f,j,t})}{\sum_{j=1}^{n_j}P_{a ls,f,j,t}}
\]

1.4. For males
\[
PWOOS_{ls,m,t} = \frac{\sum_{j=1}^{n_j}(OOS_{ls,m,j,t} \times P_{a ls,m,j,t})}{\sum_{j=1}^{n_j}P_{a ls,m,j,t}}
\]

Where:
- \( OOS_{ls,f,j,t} \) = OOSR for female children of lower secondary school age, in country \( j \)
- \( P_{a ls,f,j,t} \) = Female population of official lower secondary school age in country \( j \)
- \( OOS_{ls,m,j,t} \) = OOSR for male children of lower secondary school age in country \( j \)
- \( P_{a ls,m,j,t} \) = Male population of official lower secondary school age in country \( j \)

**Corporate Indicator calculation**

This calculation is performed by GPE.

Calculate the GPI of OOSRs for children of primary and secondary school age, separately, by dividing the GPE aggregate value of the OOS rate for females by the corresponding GPE aggregate value for males:

(a) GPI of OOSR for children of primary school age (\( GPI_{OOS pri,t} \)) for a given year:
\[
GPI_{OOS pri,t} = \frac{PWOOS_{pri,f,t}}{PWOOS_{pri,m,t}}
\]

(b) GPI of OOSR for children of lower secondary school age (\( GPI_{OOS ls,t} \)) for a given year:
\[
GPI_{OOS ls,t} = \frac{PWOOS_{ls,f,t}}{PWOOS_{ls,m,t}}
\]

**Note:**

Population data: Every two years, the United Nations Population Division releases new population projections and revised estimates for previous years. The UIS systematically revises its data according to the new estimates in order to provide the most accurate information possible and allow comparison of trends over time. These updates may result in revisions of the indicators’ values.

Data limitations (if any known / anticipated):

As mentioned in the section on indicator definition, above, as this indicator combines two basic concepts - that of a gender parity index and that of out-of-school rates – it relies on a non-traditional reading, which leads to a series of caveats. For example, increased gender parity is not necessarily good news if the OOSC-population increases. Therefore, so as to interpret the indicator value correctly, it is necessary to read the indicator in combination with the value for indicator 7 (OOSC-rate).

Further to the index, this does not show whether improvement or regression is
due to the performance of one of the gender groups (boys or girls). For example, for this indicator, the ratio may approach 1 due to either an increase in girls’ out of school rates in primary or lower secondary education (undesirable), but it may also be due to a decrease in boys out of school rates (desirable)\(^{10}\). It also important to note that, as the indicator values is an overall value across DCPs, differences in gender parity between DCPs become invisible and may even cancel each other. This means that the corporate value may not be representative of the situation in the countries.

With regards to out-of-school rates for primary and lower secondary education:

- Enrolment in school does not guarantee actual attendance of the learner at the school where she / he is enrolled, which may lead to under-estimation of out-of-school rates.

- The administrative data used in the calculation of the indicator are based on enrolment at a specific date, which can bias the results by omitting those who will enroll after the specific date of reference.

- Discrepancies in the availability of population data can result in over- or underestimates of the indicator. UIS indicators are usually calculated using population data from the United Nations Population Division (UNPD). These figures are obtained using census data and projection models to estimate population size between censuses. The models typically become more imprecise over time, leading to estimation error in population size which carries over into enrolment rates, and thus OOSC-rates.

Where data for a country are not available, the UIS estimates country-level figures. These are not published, but are used only for the purposes of calculating regional or global aggregates or averages. In these cases, the regional averages are derived from both reported and imputed national data and, thus, are an approximation of the unknown real value. The UIS’ calculation method of regional figures for indicators that are ratios consists of two steps:

1. Complete the data series by estimating the values for missing data using imputation methodology;
2. The regional average is calculated as the weighted average of the given ratio using its denominator as weight.

Notes:

- In the case of absolute numbers, Step (2) to calculate the regional or global average is simply the sum of publishable and imputed values of the given indicator for the countries in the given region.

- More information about aggregate level calculations can be found at http://www.uis.unesco.org/Education/Pages/FAQ.aspx, and for missing values at http://mdgs.un.org/unsd/mdg/Metadata.aspx?IndicatorId=0&amp;SeriesId=743

Interpretation

As the parity index refers to out-of-school rate rather than enrollment or completion rate, the indicator has a non-traditional reading with a GPI of less than 1 indicating a disparity in favour of females and a value greater than 1 indicates a disparity in favor of males. In other words, a GPI above 1 indicates a higher out-of-school rate for girls and thus a disadvantage for girls, while a GPI below 1 indicates a disadvantage for boys.

REFERENCES


ANNEXES

Annex 1 - Data Collection tool

Data collection tool utilized for collecting the data, if any:

<table>
<thead>
<tr>
<th>GPE data request file sent to UIS, including:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Updated list of GPE countries;</td>
</tr>
<tr>
<td>2. Fragile and Conflict-Affected categorization;</td>
</tr>
<tr>
<td>3. List of indicators.</td>
</tr>
</tbody>
</table>

The Fragile and Conflict-Affected categorization is updated by the GPE Secretariat on the basis of:

- The most recent list of conflict-affected countries from the GEMR (formerly EFA GMR)
- The list of countries in fragile situations from the World Bank.

Annex 2 - Additional Analysis

The data received from UIS are reviewed by the GPE Secretariat for consistency with previous estimates.

Annex 3 - Standard Operating Procedure

<table>
<thead>
<tr>
<th>Process Name: Data Collection, Quality Assurance, &amp; Storage for Indicators # 4-8, 12 &amp; 14</th>
<th>Owner: R&amp;P Team</th>
<th>Updated:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function: Measuring GPE Impact</td>
<td>Version #: 1</td>
<td>Review:</td>
</tr>
</tbody>
</table>
**Process Name:** Data Collection, Quality Assurance, & Storage for Indicators # 4-8, 12 & 14  
**Owner:** R&P Team  
**Updated:**

**Function:** Measuring GPE Impact  
**Version #:** 1  
**Review:**

**Material changes from prior version of SOP**
None; this is the first version.

**Summary**
This SOP describes the process for data collection, quality assurance, and storage for indicators:

4. Proportion of children who complete: (a) primary education; (b) lower secondary education
5. Proportion of GPE DCPs within set thresholds for gender parity index of completion rates for: (a) primary education; (b) lower secondary education
6. Pre-primary gross enrolment ratio
7. Out-of-school rate for: (a) children of primary school age; (b) children of lower secondary school age
8. Gender parity index of out-of-school rate for: (a) primary education; (b) lower secondary education
12. Proportion of DCPs with pupil/trained teacher ratio below threshold (<40) at the primary level
14. Proportion of DCPs reporting at least 10 of 12 key international education indicators to UIS (including key outcomes, service delivery and financing indicators as identified by GPE) of the GPE results framework.

**Results / Outputs**
This process should result in the results framework being updated with quality assured data on indicators # 4-8, 12 & 14.

Interim outputs of the Secretariat:
Completed data collection template

Final Output:
Updated results framework database

**Scope**
- Begins: The process begins with the M & E Data Manager sending GPE data request file to UIS.
- Ends: The process ends with updated data being integrated into the results framework database by the Monitoring and Evaluation Data Manager.
- Includes: All procedural aspects
- Excludes: Methodological aspects of calculating the indicator value. These can be found in the methodology sheet.
- Note: Official requests to UIS are submitted twice a year (beginning and mid-calendar year), following releases of education data.

**Standards (Policies, Approvals, Deadlines, etc.):**
- Policies: GPE 2020, Monitoring Sheet for GPE Results Framework Indicators #4-8, 12 & 14
- Deadlines: M & E Data Manager updates results framework database with the Indicators # 4-8, 12, &
**Process Name:** Data Collection, Quality Assurance, & Storage for Indicators # 4-8, 12 & 14  
**Owner:** R&P Team  
**Updated:**

**Function:** Measuring GPE Impact  
**Version #:** 1  
**Review:**

14 data by 30th April
- Approval: The completed data template is prepared by the M & E Data Manager and includes final approval from the Head of M & E

**Issues /Risks:**
- UIS may not send the data to GPE in good time.

**Overview:**

<table>
<thead>
<tr>
<th>Steps in the Process</th>
<th>Roles / Responsibilities</th>
<th>Outputs / Deliverables</th>
<th>Tools / Templates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Data Request</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typically by 15th Jan</td>
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</tr>
<tr>
<td>- Request the UNESCO Institute for Statistics for data as per the updated list of FCACs prior to the December release of UIS data</td>
<td>M &amp; E Data Manager</td>
<td>Data request file</td>
<td>Data request file</td>
</tr>
<tr>
<td>- Review data received from UIS</td>
<td>M &amp; E Data Manager</td>
<td></td>
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<tr>
<td>- Report any discrepancies to the UIS and request revised/updated data</td>
<td>M &amp; E Data Manager</td>
<td></td>
<td></td>
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<tr>
<td><strong>2. Aggregate Data</strong></td>
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<tr>
<td>Typically by 20th February</td>
<td></td>
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<tr>
<td>- Enter data into the template provided by the M&amp;E Data Manager</td>
<td>M &amp; E Data Manager</td>
<td></td>
<td>Data Collection Template</td>
</tr>
<tr>
<td>- Compute indicator values using the completed data collection template, based on the latest available classification of countries affected by Fragile and Conflict and forward to M &amp; E data Manager.</td>
<td>M &amp; E Data Manager</td>
<td>Completed Data Collection Template</td>
<td>List of countries affected by Fragile and Conflict from the GPE Intranet</td>
</tr>
<tr>
<td><strong>3. Update Results Framework Database</strong></td>
<td></td>
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<tr>
<td>Typically by 30th March</td>
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</tbody>
</table>
- Forward data collection template to the Head of M & E for review and approval.
  - M & E Data Manager

- Review & approve completed data collection template
  - Head of M & E
  - Approved data collection template

- Update results framework database using completed template
  - M & E Data Manager
  - Updated results framework database
  - N/A

- Notify the secretariat on the availability of data in the results framework database through the intranet
  - M & E Data Manager
  - Notification on GPE intranet